

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

October 26, 2022

Agenda ID #21085
Quasi-Legislative

~~TO PARTIES OF RECORD IN APPLICATION 18-10-008, et al.:~~

~~This is the proposed decision of Commissioner John Reynolds. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's December 1, 2022 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.~~

~~Parties to the proceeding may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.~~

~~/s/ MICHELLE COOKE~~
~~Michelle Cooke~~
~~Acting Chief Administrative Law Judge~~

~~MLC:nd3~~
~~Attachment~~

COM/JR5/nd3

PROPOSED DECISION Agenda ID #21085 (Rev.1)

**Quasi-Legislative
12/1/2022 Item #12**

Decision **PROPOSED DECISION OF COMMISSIONER JOHN REYNOLDS**
(Mailed 10/26/2022)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric
Company in Compliance with
Ordering Paragraph 37, Resolution
E-4906 (U39E).

Application 18-10-008

And Related Matters.

Application 18-10-009

Application 18-10-010

**DECISION ADOPTING THE USE OF DATA
COLLECTION DEVICES IN THE DEMAND RESPONSE
PROHIBITED RESOURCES POLICY VERIFICATION PLAN**

TABLE OF CONTENTS

Title	Page
DECISION ADOPTING THE USE OF DATA COLLECTION DEVICES IN THE DEMAND RESPONSE PROHIBITED RESOURCES POLICY VERIFICATION PLAN	1
Summary	2
1. Background	3
1.1. Prohibited Resources Policy	3
1.2. Proceeding History	6
2. Objectives and Recommendations of Pilot Report	9
3. Overview of Audit Reports	12
4. Issues Before the Commission	18
5. Data Collection Device Requirements in the Demand Response Prohibited Resources Verification Plan	19
5.1. Minimum Requirements of Verification Equipment	19
5.2. Sufficiency of Available Incentive Data	25 26
5.3. Comparing Costs of Data Loggers with Customer Incentives	27
5.4. Data Logger Requirements for Demand Response Prohibited Resources Verification Plan	32 33
5.4.1. Recommendations	33
5.4.2. Reopening the Record	36
5.4.3. Improving the Verification Plan	38 39
6. Comments on Proposed Decision	45 47
7. Assignment of Proceeding	45 48
Findings of Fact	45 48
Conclusions of Law	48 51
ORDER	50 53

Table 1. Comparison of Device Attributes

Table 2. Total Metering Pilot Equipment, Installation, and Retrieval Costs

Table 3. Comparison of 2019-2021 Audit Sample Size

**DECISION ADOPTING THE USE OF DATA
COLLECTION DEVICES IN THE DEMAND RESPONSE
PROHIBITED RESOURCES POLICY VERIFICATION PLAN**

Summary

This decision determines that an incremental modification to the Demand Response Prohibited Resources Policy Verification Plan (Verification Plan) is needed to improve the confidence level and margin of error of the annual verification audits to ensure compliance with this policy. The Commission adopts the annual monitoring of the prohibited resources of a random set of Scenario 2 customers through the installation of a data logger and a current transformer. Scenario 2 customers are demand response customers who attest they have a prohibited resource on their premises but will not use it to defer load during a demand response event. The annual demand response prohibited resource monitoring shall commence in 2024 to coincide with the annual verification audit for that year and is additional to the attestations and audits currently performed in the Verification Plan.

Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company (jointly, Applicants) are directed to purchase 60 data loggers and current transformers for use in the annual monitoring. The costs for these improvements shall be borne by all ratepayers as these demand response programs benefit all ratepayers. As described below, Applicants are directed to track these costs in the same demand response account as costs for the annual Verification Plan. These costs shall be reviewed for reasonableness in the annual Energy Resource Recovery Account process for each of the Applicants.

1. Background

Pursuant to Ordering Paragraph 37 of Resolution E-4906, on October 19, 2018, Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric

Company (SDG&E), and Southern California Edison Company (SCE) (jointly, Applicants) each filed an application to allow appropriate consideration and evidentiary development on the issue of data loggers and meters for use in the Commission's demand response Prohibited Resources Policy Verification Plan. Following the filing of the three applications, the assigned Administrative Law Judge issued a ruling on November 30, 2018, that consolidated the three proceedings.

Below is a description of the Commission's Prohibited Resources Policy and the history of this proceeding.

1.1. Prohibited Resources Policy

In Decision (D.) 14-12-024, the Commission stated that fossil-fueled back-up generation is antithetical to the efforts of the Commission's Energy Action Plan and the Loading Order.¹ In D.16-09-056, the Commission found this statement ineffective without any associated conditions or requirements and determined that the absence of a clearly identified prohibition on the use of certain resources to reduce load during demand response events conflicts with the policy statement.² The Commission further found this absence could prevent the Commission from meeting its aggressive clean energy policy goals.³ In D.16-09-056, the Commission adopted as policy a prohibition of certain resources in demand response programs, now referred to as the Demand Response Prohibited Resources Policy. The policy states:

Certain fossil-fueled resources should not be allowed as part of a demand response program, beginning January 1, 2018, subject to the rules adopted in a future implementation

¹ D.14-12-024 at Ordering Paragraph 10.

² D.16-09-056 at Finding of Fact 10.

³ D.16-09-056 at Finding of Fact 11.

program to include definitions and enforcement and verification mechanisms.⁴

The following list of resources are prohibited to be used for load reduction during demand response events: distributed generation technologies using diesel, natural gas, gasoline, propane, or liquefied petroleum gas, in topping cycle Combined Heat and Power (CHP) or non-CHP configuration.⁵ As adopted by D.16-09-056 and modified by D.18-06-012, the following resources are exempt from the list of prohibited resources: pressure reduction turbines and waste-heat-to-power bottoming cycle CHP, as well as energy storage resources not coupled with fossil-fueled generation. The following programs are exempt from the prohibition: air conditioner cycling programs, permanent load shifting programs, schedule load reduction programs, optional binding mandatory curtailment, time of use rates, critical peak pricing, real time pricing, and peak time rebates.⁶

D.16-09-056 required non-residential customers to attest to either non-use of a prohibited resource to reduce load during a demand response event, or their acceptance of a default adjustment value in cases where a prohibited resource is required for safety reasons.

Directly related to this decision, D.16-09-56 established a program to enforce the Demand Response Prohibited Resources Policy. In D.16-09-056, the Commission stated that “prudence requires some measure of verification” and that a “selective audit program should provide the balance of verification

⁴ D.16-09-056 at Ordering Paragraph 1.

⁵ D.16-09-056 at Ordering Paragraph 3.

⁶ D.16-09-056 at Ordering Paragraph 3 and D.18-06-012 at Ordering Paragraph 3.

without the costliness of annual site visits.”⁷ In order to verify that customers comply with the policy, Applicants were directed to hire consultants to assess how to evaluate whether non-residential customers are complying with the prohibition requirement and provide recommendations on how best to design an audit verification plan.⁸ Applicants were also directed to submit an Advice Letter (AL) requesting approval of the verification plan.⁹

In compliance with Ordering Paragraph 5 of D.16-09-056, Applicants jointly filed a final prohibited resources Verification Plan for demand response programs in AL 3653-E (SCE), AL 5138-E (PG&E), and AL 3108-E (SDG&E) on September 1, 2017. The Commission adopted Resolution E-4906, which approved, with modifications, Applicants’ Demand Response Prohibited Resources Policy Verification Plan (Verification Plan) and Applicants’ proposal to conduct a test pilot of interval meter and data logger installations.

The Verification Plan provides a verification framework for all non-residential participants of demand response programs and market products affected by the prohibition. The Verification Plan is performed annually by a Verification Administrator and proscribes different verification activities depending on the disposition of prohibited resources at a demand response participant’s premises. There are three use cases of prohibited resources disposition at a customer premise, referred to as “Scenarios” in demand response participants’ attestations. The required written attestations obligate the

⁷ D.16-09-056 at 42. (See *also* Conclusion of Law 14 stating it is “reasonable to require some level of customer compliance with the demand response resource prohibition requirement.”)

⁸ D.16-09-056 at Ordering Paragraph 5.

⁹ D.16-09-056 at Ordering Paragraph 5.

participant to indicate prohibited resource disposition at their premises as compliant with one (and only one) of three scenarios:

Scenario 1: I do not have a Prohibited Resource on site;

Scenario 2: I have a Prohibited Resource on-site and I will not use the resource to reduce load during any demand response event; or

Scenario 3: I do have a Prohibited Resource on-site and I may have to run the resource(s) to reduce load during demand response events for safety reasons, health reasons, or operational reasons. My Prohibited Resource(s) has or have a total nameplate capacity of _____ kW. I understand that this value will be used as the Default Adjustment Value to adjust demand response incentives/charge for my account.

The Verification Plan does not currently require customers who attest to Scenario 2 to install data collection devices or permit the devices to be installed. Instead, Resolution E-4906 directed Applicants to file applications to ascertain whether the Commission should adopt the use of data collection devices such as loggers and meters in the Verification Plan for Scenario 2 customers. Applicants were directed to provide information on customer incentives, load reduction, and meter and logger costs in the applications.¹⁰

1.2. Proceeding History

The assigned Administrative Law Judge presided over a prehearing conference on January 10, 2019, to discuss the issues of law and fact, determine the need for hearing, and establish a schedule for resolving the matter. The assigned Commissioner issued a Scoping Memo and Ruling on January 29, 2019, which determined evidentiary hearing was necessary, established the schedule, and set forth the issues as indicated in Section 4 of this decision.

¹⁰ Ordering Paragraph 37 of Resolution E-4906.

To assist parties in having a better technical understanding of the issues in this proceeding, Energy Division facilitated a Workshop on Data Loggers and Interval Meters on March 15, 2019. Also on March 15, 2019, SCE served Supplemental Testimony, which contained information that had not been available at the time of the filing of the application. SCE then served Amended Testimony on May 21, 2019, revising incentive data. After receiving permission to file late, Cal Advocates and CLECA served intervenor testimony on June 14, 2019.¹¹ The following parties served rebuttal testimony on July 8, 2022: CLECA, Cal Advocates, PG&E, SDG&E, and SCE.

~~Parties served testimony on April 5, 2019, and rebuttal testimony on June 28, 2019.~~ Applicants filed the results of the pilot on data collection devices (Metering Pilot) on November 18, 2019: *Demand Response Prohibited Resources Verification Administrator Metering Pilot Report* (Pilot Report), which was performed by the consultant, Nexant. The Executive Summary of the Pilot Report states that Nexant carried out a field study under contract with SCE, and in partnership with PG&E and SDG&E.¹¹¹² The Pilot Report explains that Nexant piloted two different types of data collection devices with the objective of developing the public record on the strengths and weaknesses of the use of interval meters and data loggers in monitoring the operation of customer-owned fossil-fueled generation.¹²¹³ Applicants hosted a workshop on the findings from the Pilot Report on December 5, 2019.

¹¹ Pursuant to Commission Rules of Practice and Procedure, Rule 11.6, Cal Advocates requested a two-week extension for prepare intervenor testimony to be served, in order to review delayed meter installation cost data. Through a May 16, 2019 procedural e-mail, the Administrative Law Judge granted the extension of time to serve intervenor testimony and set a date of July 8, 2019 for rebuttal testimony to be served.

¹¹¹² Pilot Report at Executive Summary.

¹²¹³ Pilot Report at Executive Summary.

Following the December 27, 2019 filing of a Status Update from the Applicants, the Administrative Law Judge issued a January 10, 2020 ruling canceling evidentiary hearing and entering the Pilot Report into the evidentiary record. Pursuant to the Administrative Law Judge's instructions in the January 10, 2020 ruling, on January 31, 2020, Applicants filed the Nexant 2019 Audit Report for the Verification Plan (Initial Audit Report), which was also entered into the evidentiary record.

The Initial Audit Report documents Nexant's activities as the Verification Administrator in carrying out the 2019 verification audit. The Initial Audit Report describes the audit process, summarizes the outcomes of the audit, and provides recommendations for improving or clarifying the Verification Plan.

[Public exhibits were received into evidence on March 10, 2020.](#)

On March 20, 2020, PG&E, the Public Advocates Office of the California Public Utilities Commission (Cal Advocates), SDG&E, Sierra Club, and SCE each filed opening briefs. On April 3, 2020, these same parties, as well as California Large Energy Consumers Association (CLECA), each filed reply briefs.

On ~~September 8~~[November 5](#), 2020, the Administrative Law Judge issued a ruling granting an April 30, 2020 SDG&E motion to supplement the evidentiary record with a response to Sierra Club's Third Set of Data Requests; the ruling also granted all March 2, 2020 motions to admit [confidential](#) exhibits into the record.^{~~13~~[14](#)}

Due to extenuating circumstances, the statutory deadline for this proceeding was extended multiple times. As a result, the Administrative Law Judge issued a ruling on July 27, 2022 setting aside submission of the record to

^{~~13~~[14](#)} The following parties filed motions offering testimony and exhibits into the record: CLECA, PG&E, Cal Advocates, SDG&E, Sierra Club, and SCE.

take comment on two subsequent audits, enter the audits into the evidentiary record, and allow parties the opportunity to update the record of this proceeding. The following parties filed comments on August 8, 2022: PG&E with SDG&E, Cal Advocates, Sierra Club, and SCE. The following parties filed replies on August 12, 2022: PG&E with SDG&E, Sierra Club, and SCE. No party objected to receiving the two subsequent audits into the record, herein referred to as the 2020 Audit Report and the 2021 Audit Report. The record was resubmitted on August 12, 2022.

2. Objectives and Recommendations of Pilot Report

The goal of the Metering Pilot was to test the installation of data loggers and interval meters in 10 percent of the Scenario 2 demand response program participants — those attesting they have a Prohibited Resource on-site and will not use the resource to reduce load during any demand response event. The Metering Pilot had five objectives: (i) determine the value of data provided by the data loggers and interval meters in determining violations of the attestations; (ii) measure the effectiveness of the two data collection devices; (iii) evaluate the customer experience with respect to accommodating the devices; (iv) assess costs for installing and retrieving devices; and (v) develop recommendations to scale up device installations.

The Pilot Report determined the following strengths and weaknesses of data loggers and interval meters:

Table 1. Comparison of Device Attributes¹⁴¹⁵

	Data Loggers	Interval Meter
Strengths	<ul style="list-style-type: none"> • Can nearly always be successfully installed. • Customer-friendly installations. • Inexpensive. 	<ul style="list-style-type: none"> • Can indicate whether a prohibited resource is used differently on demand response event days versus non-event days.
Weaknesses	<ul style="list-style-type: none"> • Cannot definitively indicate whether a prohibited resource is used differently on demand response event days versus non-event days. • Ease of installation can lead to device disappearance in the field. 	<ul style="list-style-type: none"> • Installations not customer-friendly — may require service shutdown for safe installation. • Expensive compared to data loggers.

With respect to costs, the Pilot report found the average logger installation site costs \$2,221 to equip, install, and retrieve the data logger, and the average

interval meter site costs \$3,531 to equip, install, and retrieve the interval

meter.¹⁵¹⁶ From this, the Pilot Report asserted a cost per device of \$1,623 for a

data logger and \$2,097 for an interval meter.¹⁶¹⁷ The Pilot Report also provided

the data in Table 2 with respect to costs for the pilot.

Table 2. Total Metering Pilot Equipment, Installation, and Retrieval Costs¹⁷¹⁸

	Data Loggers	Interval Meters
Total Equipment Costs	\$9,200	\$25,060
Total Installation Costs	\$24,250	\$28,750

¹⁴¹⁵ Pilot Report at 34, Table 5-5 (A-39).

¹⁵¹⁶ Pilot Report at 19 (A-24).

¹⁶¹⁷ Pilot Report at 19, Table 3-14 (A-24).

¹⁷¹⁸ Pilot Report at 19, Table 3-13 (A-24).

	Data Loggers	Interval Meters
Total Retrieval Costs	\$8,740	\$13,280
Total Sites	19	19
Total PRs¹⁸¹⁹	25	28
Total Devices	26	32
Subtotal	\$42,190	\$67,090
Grand Total	\$109,280	

The Pilot Report concluded that many customers will not develop the ability to successfully maintain either of the data collection devices. The Pilot Report asserted this was due to a low likelihood that the appropriate level of stewardship, required to keep the fleet of monitoring devices operating as designed, would occur. Relatedly, the Pilot Report also concluded that requiring the Applicants to maintain a fleet of data collection devices would be a massive undertaking and extremely expensive. Hence, the Pilot Report cautioned against adoption of either a demand response participant requirement to install such devices or an Applicant requirement to install a data collection device as a condition of participation in the demand response program.¹⁹²⁰ Instead, the Pilot Report recommended adoption of an annual random sampling of Scenario 2 demand response participants, where all prohibited resources at a given site are monitored.²⁰²¹ Because some prohibited resources may be used regularly for baseload production, the Pilot Report contends that a data logger cannot always determine whether a prohibited resource operating during an event is

¹⁸¹⁹ PR is the acronym for prohibited resources

¹⁹²⁰ Pilot Report at 35 (A-40).

²⁰²¹ Pilot Report at 35 (A-40).

producing demand response.²¹²² Based upon the Pilot Reports' determination of data logger limitations, the Pilot Report proposed that the default data collection device be an interval meter but to allow data loggers where the installation of interval meters is not possible.²²²³ Further, the Pilot Report suggested leveraging built-in data sources, also referred to as on-board metering, for efficiency.²³²⁴

3. Overview of Audit Reports

The Commission directed an annual verification audit in Resolution E-4906. The dual objectives of the annual audit are to: (1) encourage compliance with the Prohibited Resources Policy among all participants of demand response programs, pilots, and products; and (2) provide an annual estimate of the compliance rate for each program, pilot, and product.

The audit framework, adopted by the Commission, begins with a random sampling of customers from each demand response program, pilot or product that is in operation and subject to the Prohibited Resources Policy. For the 2019 audit, which is the subject of the Initial Audit Report, the sample size was a total of 221 service accounts. For each account, the audit framework includes an attestation validation to ensure the attestation contains correct information according to the customer.

Once all sampled attestations are corrected, the next step in the audit framework is to verify that the sampled attestations are not contradicted by other sources of information. For Scenario 1 attestations, other sources of information that could contradict the statement that a customer does not have a prohibited resource include other databases maintained by the Applicants and databases

²¹²² Pilot Report at 33 (A-38).

²²²³ Pilot Report at 35 (A-40).

²³²⁴ Pilot Report at 35 (A-40).

maintained by Air Quality Management Districts. Scenario 2 and Scenario 3 customers were contacted by e-mail and asked to verify that their attestation concerning the number of prohibited resources and total onsite capacity is correct. Both Scenario 2 and Scenario 3 customers were asked to provide certain documentation to verify the information in the attestation.

This decision determines whether to require data collection devices on Scenario 2 customers' prohibited resources, hence this section focuses solely on the audit results of the 57 Scenario 2 service accounts. The Initial Audit Report found no violations of the Prohibited Resources Policy, a Type II violation.²⁴²⁵ The report provides certain details that are repeated here. The verification process for the 57 Scenario 2 accounts resulted in a "wide variety of outcomes." Eight of the Scenario 2 accounts were not responsive and were reported to the Commission as noncompliant with the audit request, a Type I violation. Twelve of the Scenario 2 accounts were Scenario 1 sites, as verified by the relevant Air Quality Management District. Three Scenario 2 accounts responsive to the audits were missing information on the number of prohibited resources onsite and the total nameplate capacity; this data was subsequently provided by the customer. Four Scenario 2 accounts were found to not be contracted for load reduction and,

²⁴²⁵ Resolution E-4838 prescribed consequences for two types of violations or noncompliance with the attestations: Type I Violation: Minor clerical or administrative errors that may be resolved with an updated attestation and do not involve the use of a prohibited resource to reduce load during a DR event. Type II Violation: Using prohibited resource(s) to reduce load during a demand response event despite attesting to not doing so or submitting an invalid nameplate capacity for the prohibited resource(s). For a Type I Violation, customers may "cure" their non-compliance by submitting a valid attestation within 60 days. Failure to comply will result in removal from the affected demand response program. For a Type II Violation, customers will be removed from the affected DR program and are ineligible to enroll in any affected demand response program for one year for the first violation. Two or more Type II violations will result in removal for three years. (See Resolution E-4838 at 22 and Ordering Paragraphs 14-15.)

therefore, were eliminated from the response list. Eight Scenario 2 accounts were found to have incorrect attestations concerning nameplate capacity, four of these corrected the attestations but four remained outstanding as of the submission of the report. Hence, of the original 57 identified Scenario 2 service accounts, only 40 accounts were truly Scenario 2 accounts.

Nexant examined 79 operating manifests from the 40 Scenario 2 service accounts for evidence of noncompliant prohibited resource usage. Nexant explained that 54 manifests showed prohibited resources operating on at least one event day during the test period. Evaluating these resources to determine whether usage during event days produced demand response, Nexant first created a baseline (or proxy days) to determine the expected prohibited resource usage on an event day. The next step in the evaluation is different for fuel cell resources versus non-fuel cell resources.

Because fuel cell resources are designed to operate continually, Nexant examined the time series of fuel cell usage data in tandem with the output on the average proxy day. Nexant reported that event day usage data showed similar or higher proxy day usage in three of the four fuel cells, with the fourth fuel cell showing a lower proxy day usage. Nexant concluded that “none of the four fuel cells... show evidence of increased production during the entire [demand response] event day or specifically during event hours.”²⁵²⁶

In the case of non-fuel cell resources, the validation procedure for usage on event days differed depending on the specificity of the data contained in the manifests. Nexant reported that six of the manifests provided the specific hours the prohibited resources were operating and indicated none of these six

²⁵²⁶ Initial Audit Report at 11 (A-14).

prohibited resources were operating during demand response event hours. The manifests for the remaining 44 prohibited resources were less specific and only provided the days the resource reported operating and the number of hours the resource operated on that day. Based upon one or more of the following observations of these 44 manifests, Nexant concluded there is not sufficient evidence to support the position that any of these customers are using their prohibited resources to produce demand response: (i) the incidence of prohibited resource usage on event days and proxy event days is similar; (ii) the testing pattern of the prohibited resources follows a regular calendar and the demand response events during which the resources are run occur on regular monthly testing days; (iii) usage of the prohibited resource is coincident with an outage; or (iv) the number of demand response events with prohibited resource usage is small compared to the number of total demand response events. ²⁶²⁷

The Initial Audit Report makes three recommendations with respect to the Verification Plan for the Prohibited Resources Policy.

- a. Maintain the first step of verifying attestation accuracy with the customer. The Audit Report points out this is an important mechanism for socializing among participants that attestations are audited annually and to remind them that compliance matters.
- b. Evaluate the sampling paradigm for small programs and pilots for disproportionate individual customer impact. The Audit Report notes that while setting standardized targets is good policy, it may result in a large request to individual customers in small programs.
- c. Require utilities and demand response providers to inform demand response participants to conservatively interpret the Air Toxic Control Measure instructions when

²⁶²⁷ Initial Audit Report at 11 (A-14).

maintaining operating manifests to ensure compliance with the Prohibited Resources Policy. The Audit Report cautions that the less conservative approach currently used by the Commission “weakens” the ability to definitively rule out Type II violations on days when prohibited resource usage and demand response events coincide.

As previously stated, submission of the record of this proceeding was set aside to receive the 2020 and 2021 Audit Reports into the record. These two audits were conducted in the same manner as described in the Initial Audit Report. Table 3 below compares the sample size for Scenario 2 customers in each of the three reports.

Table 3. Comparison of 2019-2021 Audit Sample Size

Program, Pilot or Product ²⁷²⁸	Total Sample Size ²⁸²⁹		
	2019	2020	2021
AP-I	0	1	0
BIP	8	7	11
CBP	9	6	5
DRAM	14	7	14
XSP	4	n/a	n/a
LCR	18	14	13
SSP2	4	5	n/a
Total	57	40	43

With respect to the 2020 audit, Nexant reported that of the 40 Scenario 2 service accounts sampled, two accounts were corrected to Scenario 1 accounts;

²⁷²⁸ The acronyms in this table are defined as follows: AP-I (Agricultural Pumping-Interruptible program), BIP (Base Interruptible Program), CBP (Capacity Bidding Program), DRAM (Demand Response Auction Mechanism products), XSP (PG&E’s Excess Supply Pilot), LCR (Local Capacity Requirements Contracts), and SSP2 (PG&E’s Supply Side Pilot 2).

²⁸²⁹ Initial Audit Report at Table 2-4; 2020 Audit Report at Table 2-5; and 2021 Audit Report at Table 5.

six accounts had resources with nameplates below 37 kilowatt hours and therefore were not required to provide a manifest; two accounts were unresponsive to providing a manifest; and two accounts revealed they did not keep operating manifests. Nexant reviewed 42 manifests from the remaining 28 service accounts. Following the same procedures as described in the Initial Audit Report, Nexant concluded that two fuel cell resources showed no evidence of increased production during the entire demand response event day or during the specific event hours. Analysis of the 19 non-fuel cell resources found no evidence sufficient to support the position that customers were using these resources to reduce load during a demand response event. As in the Initial Audit Report, Nexant based its conclusion on the following observations: (i) the incidence of prohibited resource usage on event days and proxy event days is similar; (ii) the testing pattern of the prohibited resources follows a regular calendar and the demand response events during which the resources are run occur on regular monthly testing days; (iii) usage of the prohibited resource is coincident with an outage; or (iv) the number of demand response events with prohibited resource usage is small compared to the number of total demand response events.^{[29](#)[30](#)}

The 2021 Audit Report made similar findings and conclusions as the two previous audit reports. Relevant to this decision, the 2021 Audit Report found no evidence of usage of a prohibited resource to reduce load during a demand response event.^{[30](#)[31](#)}

^{[29](#)[30](#)} 2020 Audit Report at 13 (A-16).

^{[30](#)[31](#)} 2021 Audit Report at 9-13 (A-12 to A-16.)

4. Issues Before the Commission

In the sections below, this decision describes each of the four issues, as established in the Scoping Memo, and provides the general party positions posited in briefs. The four issues are:

- a. What should be the minimum requirements, including safety standards, of the metering or data logger equipment to demonstrate customer compliance or non-compliance with the Demand Response Prohibited Resources Policy adopted in D.16-09-056;
- b. Whether the available incentive data is sufficient for determining the reasonableness of costs for metering or data logger equipment;
- c. Whether the costs for metering or data logger equipment that meet the required safety standards are reasonable in comparison to the demand response incentives provided to the customers required to install the metering or data logger equipment; and
- d. Whether the Commission should direct the Utilities to require customer installation of metering or data logger equipment that meet safety standards for use in the Demand Response Prohibited Resources Verification process.

5. Data Collection Device Requirements in the Demand Response Prohibited Resources Verification Plan

While there are four issues listed in the Scoping Memo for this proceeding, the pivotal questions for the Commission to consider are: Are the costs of the equipment required by the Commission to ensure that prohibited resources are not being used reasonable in comparison to the incentives provided to the customers? And, relatedly, if those costs are reasonable in comparison to the incentives, should the Commission adopt the use of these devices? And, finally,

if the Commission requires the use of these devices, should ratepayers or the demand response prohibited resource customer be responsible for the cost?

Section 5.1 discusses and determines the minimum requirements of the data collection devices, *i.e.*, meters and data loggers. Section 5.2 presents party arguments and a determination as to whether the record contains sufficient data regarding the demand response incentives provided to customers. In Section 5.3, this decision discusses the costs for the data collection devices as presented in testimony and determines whether these costs are reasonable. Section 5.4 presents party arguments and the Commission's determination as to whether the Commission should direct the Utilities to require customer installation of the aforementioned verification equipment.

5.1. Minimum Requirements of Verification Equipment

In the Pilot Report, Nexant describes the data collection devices used:

Data loggers are electronic data recording devices used in evaluation, measurement, and verification studies of demand side management programs.³¹³² Data loggers record data that indicates each instance (date and time) that an electric load source is turned on and when (date and time) that electric load source is turned off. Loggers do not record the amount of power — watts (W) or kilowatts (kW) — drawn by the electric load source.³²³³ Data loggers can be connected to current transformers that detect the flow of electric current, which indicates the end use is in operation.³³³⁴

Interval meters are sophisticated data loggers. Interval meters record data that indicates [sic] the amount of power (W or kW) drawn by an electric load source for all intervals during the period of time the interval meter is monitoring the load;

³¹³² Pilot Report at 12 (A-17).

³²³³ Pilot Report at 7 (A-12).

³³³⁴ Pilot Report at 12 (A-17).

common recording intervals used by interval meters are 5-minute, 15-minute, and 1-hour.³⁴³⁵

Because data loggers cannot determine whether a prohibited resource used during a demand response event is reducing load, Nexant recommends the Commission adopt the use of interval meters as the default data collection device for verifying compliance with the Prohibited Resources Policy.³⁵³⁶ However, Nexant submits data loggers could be used in cases where the installation of interval meters is not possible.³⁶³⁷ The Pilot Report also states that all prohibited resources encountered during the pilot were either baseload-serving generators or back-up generators and the baseload-serving generators were all fuel cell resources.

SCE and SDG&E support the proposed minimum requirements outlined in the Pilot Report, whereby Nexant recommends the default data collection device should be interval meters because data loggers' usefulness in characterizing prohibited resources' production coincident with demand response event hours is limited.³⁷³⁸

PG&E also supports the use of interval meters versus data loggers for verifying whether a prohibited resource has not been used during a demand response event.³⁸³⁹ PG&E, however, calls for additional safety related requirements. PG&E recommends the use of revenue-grade meters or settlement quality interval generator meters because they are manufactured to withstand

³⁴³⁵ Pilot Report at 7 (A-12).

³⁵³⁶ Pilot Report at 33 (A-38) and 35 (A-40).

³⁶³⁷ Pilot Report at 35 (A-40).

³⁷³⁸ SCE Opening Brief at 4-5 citing Pilot Report at 33 (A-38) and SDG&E Opening Brief at 17 citing Pilot Report at 35-36 (A-40 to A-41).

³⁸³⁹ PG&E Opening Brief at 6 citing Pilot Report at 34 (A-39).

harsh conditions.³⁹⁴⁰ Further, PG&E asserts that cabinetry must be used to house the meters to: (i) reduce the likelihood of human contact with dangerously high voltages and currents; (ii) safely house conduit between components; and (iii) provide a safe location for connecting breakers and fuses in the case of overload.⁴⁰⁴¹ PG&E also claims that to properly detect the use of prohibited resources in violation of the prohibition, it is best to require the meter have a three-phase alternator conductor detection capability. Claiming that 99.4 percent of its demand response participants use three-phase power, PG&E asserts the only way to accurately measure output levels is by using a three-phase conductor because monitoring only one phase of output could allow the other two phases to operate undetected.⁴¹⁴²

Cal Advocates offers that data collection devices should accurately capture the date, time, and change in output of the prohibited resource while complying with applicable industry and utility-imposed safety standards.⁴²⁴³ Cal Advocates specifically recommends meters that can capture prohibited resources' change in output in at least one-hour intervals,⁴³⁴⁴ Cal Advocates contends that loggers should only be used on a case-by-case basis coupled with a modification to the Commission's violation rules, whereby a customer using the logger and found to be using the prohibited resource on the day of a demand response event would be found in violation of the ban.⁴⁴⁴⁵

³⁹⁴⁰ PG&E Opening Brief at 8.

⁴⁰⁴¹ PG&E Opening Brief at 8.

⁴¹⁴² PG&E Opening Brief at 9.

⁴²⁴³ Cal Advocates Opening Brief at 4.

⁴³⁴⁴ Cal Advocates Opening Brief at 4.

⁴⁴⁴⁵ Cal Advocates Opening Brief at 25.

While not opposed to requiring interval meters, Sierra Club maintains that most customers only need a simple data logger and asserts the Pilot Report “reveals that prohibited resources either have pre-installed, on-board metering or they can demonstrate compliance with a simple data logger.”⁴⁵⁴⁶ Sierra Club asserts that the Pilot Report shows that prohibited resources are either back-up generators or fuel cells and that all fuel cells have on-board metering and back-up generators only require the use of data loggers.⁴⁶⁴⁷ Sierra Club contends that diesel generators cannot legally serve load outside of an emergency and therefore any use of a diesel back-up generator to serve load during a demand response event is evidence of non-compliance with the Prohibited Resources Policy.⁴⁷⁴⁸ Sierra Club

In this decision, the Commission looks at the Verification Plan in its entirety to determine the minimum requirements for a monitoring device. The monitoring of prohibited resources would not be the sole approach to verify compliance with the Prohibited Resources Policy. The Commission has a Verification Plan in place and past audits reveal that the verification of attestations through customer information and other sources of information, as well as the verification of prohibited resource usage through the manifest logs, has resulted in few Type II violations. The monitoring of prohibited resources would be an additional layer to the Verification Plan. Again, monitoring is focused on Scenario 2 customers, those who attest they have a prohibited resource on site and will not use the resource to reduce load during a demand response event.

⁴⁵⁴⁶ Sierra Club Opening Brief at 9.

⁴⁶⁴⁷ Sierra Club Opening Brief at 9.

⁴⁷⁴⁸ Sierra Club Opening Brief at 11.

For fuel cell resources, this decision finds there is no need for external data loggers or interval meters. As identified in the three audit reports, most fuel cell resources contain internal or on-board metering. The Pilot Report recommends use of on-board metering and the Commission agrees such a practice is efficient. However, for purposes of the Verification Plan, internal on-board meters should be set to measure and record output at 15-minute intervals to accurately capture a change in output. This accuracy is necessary in the case of fuel cell resources because a fuel cell resource typically operates continuously.

With respect to non-fuel cell resources, the Pilot Report finds that a non-fuel cell prohibited resource that operated during a demand response event was operated in violation of the Prohibited Resources Policy. As explained in the Pilot Report, the violating customer did not use a baseload producing prohibited resource.⁴⁸⁴⁹ The violation, thus, would have been detected with a simple data logger and current transformer, and the confidence of the finding would not have been improved by the use of the more costly interval metering equipment that records the energy output by the prohibited resource.

The Commission recognizes that some prohibited resources may be used regularly for baseload production but the record shows that baseload production is dominated by fuel cells. For example, the Pilot Report states that all prohibited resources encountered in the pilot “were either baseload-serving generators or [backup generators]. In the case of baseload-serving generators, they were all fuel cells.”⁵⁰ Further, the three audit reports all suggest that baseload-serving generators sampled in each year are fuel cell resources.⁵¹ None of these reports

⁴⁸⁴⁹ Pilot Report at 33.

⁵⁰ Pilot Report at 15.

⁵¹ See Initial Audit Report at 10-13 stating that prohibited resources operated no more than 19 percent of the time on proxy days, 2020 Audit Report at 12-15 stating that prohibited resources

[indicate use of a non-fuel cell resource for baseload production.](#) Therefore, the Commission only needs to know whether non-fuel cell resources are outputting power in order to determine whether it is in violation of the Prohibited Resources Policy, *i.e.*, serving load during a demand response event. Hence, this decision finds that capturing the level of power is not necessary for prohibited resources that are not regularly used for baseload production, contrary to the positions of Nexant and PG&E.

Sierra Club submits that the Pilot Report demonstrates the effectiveness of data loggers at monitoring compliance for back-up generators with the addition of current transformers.⁴⁹⁵² However, PG&E contends the addition of current transformers is not enough to ensure verification of whether a resource is serving load and avoiding a false positive. This decision has determined that it is only necessary to know whether a non-fuel cell resource is on or off to determine whether it is serving load. Further, the Pilot Report explains that if a resource is simply started for testing purposes and is not placed under load, the current transformer will not register current and not show usage (*i.e.*, no false positives).⁵⁰⁵³ Hence, this decision finds that installation of a data logger in combination with a current transformer will indicate whether an end use is in operation and if this occurs coincident to a demand response event, the non-fuel cell resource is in violation of the Prohibited Resources Policy.

[percent of the time on proxy days, 2020 Audit Report at 12-15 stating that prohibited resources operated no more than 10.9 percent of the time, and 2021 Audit Report at 11-14 stating that prohibited resources operated at no more than 22.7 percent of the time. Because baseload-producing resources are expected to operate nearly 100 percent of the time, it is unlikely any of these resources serve baseload.](#)

⁴⁹⁵² Sierra Club Opening Brief at 10.

⁵⁰⁵³ Pilot Report at 13 (A-18).

Lastly, this decision finds PG&E's recommendations for additional safety measures such as cabinetry to be only related to interval meter devices. PG&E claims that cabinetry will reduce the likelihood of human contact when it comes to interval meters. With respect to data loggers, this decision finds that once a logger is in place, the potential for human contact would not occur until removal of the logger. Upon installation, data loggers can detect and record the date and time a prohibited resource is turned on to operate and serve load, and, subsequently, record the date and time the resource was turned off and no longer serving load; this data is stored electronically in the data logger until it is retrieved.⁵¹⁵⁴ Alternatively, data loggers with communications modules that can wirelessly transmit the data stored in its memory are also available but require a power source other than an internal battery.⁵²⁵⁵ Accordingly, the Commission should adopt the data logger and a current transformer as the required data collection device. The use of this combination will provide the data needed at a lower cost compared to the interval meter: total year cost per device of \$1,623 for a data logger versus \$2,097 for an interval meter.

5.2. Sufficiency of Available Incentive Data

PG&E believes there are sufficient data for the Commission to determine whether the costs for metering or data logger equipment are reasonable.⁵³⁵⁶ PG&E states that they provided data in their testimony on incentives to Capacity Bidding Program and Base Interruptible Program customers between August 1,

⁵¹⁵⁴ Pilot Report at 13 (A-18).

⁵²⁵⁵ Pilot Report at 13 (A-18).

⁵³⁵⁶ PG&E Opening Brief at 8.

2017 through July 31, 2018.⁵⁴⁵⁷ Cal Advocates agrees that the incentive data provided by the Applicants, while not exhaustive of every demand response program, capture the range of incentives provided across all three of the Applicants.⁵⁵⁵⁸ PG&E contends the data can be easily compared to the annual installation costs contained in the Pilot Report. However, PG&E cautions the Commission not to consider the mean or median incentives provided by Applicants, but rather the Commission should compare the incentives and metering costs by load reduction and interval classifications.⁵⁶⁵⁹

SCE agrees that information is in the record regarding the incentives provided to customers enrolled in affected demand response programs. However, SCE advises the Commission to consider evidence about the rate of attrition and barriers to participation that may result if the financial and administrative costs to participate in a demand response program outweigh the financial benefits.⁵⁷⁶⁰ Similarly, SDG&E argues the Commission should not rely upon the incentive data for purposes of determining the reasonableness of costs for metering devices.⁵⁸⁶¹

This decision finds that the incentive data in this record is sufficient to make a comparison to the costs of the data logger and current transformer. However, this decision concludes, as discussed below, that the incentive data alone should not lead to a determination on whether it is reasonable to require

⁵⁴⁵⁷ PG&E Opening Brief at 8.

⁵⁵⁵⁸ Cal Advocates Opening Brief at 5.

⁵⁶⁵⁹ Cal Advocates Opening Brief at 5.

⁵⁷⁶⁰ SCE Opening Brief at 6-7.

⁵⁸⁶¹ SDG&E Opening Brief at 17-18.

the installation of equipment to verify whether a resource is being used to reduce load during a demand response event.

5.3. Comparing Costs of Data Loggers with Customer Incentives

Cal Advocates asserts the cost to install a non-revenue grade, interval meter or data logger to determine compliance with the Demand Response Prohibited Resources Policy is reasonable compared to the incentives demand response participants receive. Referencing data from the Pilot Report, Cal Advocates maintains the total year 1 logger cost (including the device, current transformer, installation and data retrieval) ranges from \$1,090 to \$1,890.⁵⁹⁶²

Comparing the incentive data provided by PG&E with the cost data for data collection devices provided in the Pilot Report, Cal Advocates contends that requiring the devices is not cost prohibitive. Cal Advocates maintains the payback periods for the one-time costs associated with data collection devices are less than one year for the majority of PG&E's participants in the Base Interruptible Program and Capacity Bidding Program. Underscoring that most of these customers participate in the programs for more than a year, Cal Advocates concludes that, including annual ongoing costs, the cost of an interval meter or data logger is reasonable in comparison to multiple years of recurring incentive revenue.⁶⁰⁶³ Cal Advocates relies upon PG&E confidential incentive data, which cannot be revealed in this public decision.

Also in support of requiring data collection devices, Sierra Club asserts the record demonstrates the costs of verification are reasonable in comparison to the

⁵⁹⁶² Cal Advocates Opening Brief at Table 1 noting that year 1 costs may be lower due to bulk procurement, installation of multiple meters at the same site and need for an enclosure.

⁶⁰⁶³ Cal Advocates Opening Brief at 9-10.

incentives for participation, especially when considered on an annual basis. Sierra Club claims that, based on the Pilot Report, the annual cost per prohibited resource would be \$484 for a data logger and \$666 for an interval meter.⁶¹⁶⁴ Sierra Club contends incentive payments could comfortably compensate customers for annual monitoring costs of this magnitude.⁶²⁶⁵ Sierra Club suggests that to accommodate demand response participants receiving smaller incentive payments, the Applicants could bill customers for the annual costs of the program and divide the capital costs of the equipment and installation over the equipment lifespan.⁶³⁶⁶

PG&E asserts the Pilot Report indicates that the total cost of the pilot equipment, installation, and retrieval costs for monitoring 10 percent of Scenario 2 customers for all three utilities was \$109,280 in 2019 dollars. PG&E estimates that equipment for 100 percent of Scenario 2 customers would be \$1.092 million. Acknowledging that this may seem to balance with the total incentives paid to customers, PG&E cautions the Commission to consider the incentives classified by load reduction groups.⁶⁴⁶⁷ PG&E contends the costs for deploying data collection devices on all Scenario 2 customers are not reasonable when balanced against the incentives provided to the customers.

In opposition to the monitoring of all Scenario 2 customers, SCE argues for consideration of the adverse impacts to the attrition rate and barriers to demand response participation, and asserts the financial and administrative costs to participate in a demand response program could outweigh the financial benefits

⁶¹⁶⁴ Sierra Club Opening Brief at 16.

⁶²⁶⁵ Sierra Club Opening Brief at 16.

⁶³⁶⁶ Sierra Club Opening Brief at 16.

⁶⁴⁶⁷ PG&E Opening Brief at 9.

for customers.⁶⁵⁶⁸ SDG&E expresses the same concern, asserting the required installation of data collection devices “would result in a barrier” to demand response participation.⁶⁶⁶⁹ SDG&E highlights that the Pilot Report cautions that such a requirement would be “massively and extremely expensive” and “a barrier to program participation.”⁶⁷⁷⁰

Providing the customer perspective, CLECA contends the costs discussed in the Pilot Report are not inclusive, as they do not account for the overall costs of participating in a demand response program, which should include the cost of lost productivity during installation of a data logger or an interval meter.⁶⁸⁷¹ CLECA contends cost estimates in the Pilot Report did not include other non-installation costs for the Verification Plan that will be incurred by the demand response program.

As previously discussed above, this decision finds that a data logger coupled with a current transformer is the minimum technology needed for the Verification Plan. The record shows that parties’ claims of total costs, while relying on the findings of the Pilot Report, vary. Hence, it is necessary to clarify the costs for purposes of comparing with the incentives. The Pilot Report indicates the 2019 per unit cost (as advertised by manufacturers) for a data logger coupled with a current transformer is \$414 (\$364 for a multi-channel data logger and \$50 for a split-core current transformer.)⁶⁹⁷² No party disputes these costs.

⁶⁵⁶⁸ SCE Opening Brief at 7.

⁶⁶⁶⁹ SDG&E Opening Brief at 10.

⁶⁷⁷⁰ SDG&E Opening Brief at 10 citing Pilot Report at 35 (A-40).

⁶⁸⁷¹ CLECA Reply Brief at 5.

⁶⁹⁷² Pilot Report at 15 (A-20), Table 3-9.

This decision previously determined that no additional safety equipment is needed, as proposed by PG&E. While this decision finds the additional safety cabinetry, *etc.*, to be unnecessary, there are other costs the Commission should consider when determining the reasonableness of adopting data collection device requirements for Scenario 2 customers. The Pilot Report highlights three primary costs (equipment, installation, and retrieval) but reveals there are other related costs, which vary significantly depending on whether the adopted verification program is based on required participation by all Scenario 2 customers or a sample of these customers. The Pilot Report submits that these other costs include ministerial tasks such as: (i) development of a participation recruitment list; (ii) customer contact and appointment scheduling; (iii) management of equipment procurement; (iv) training and dispatch of electricians and technicians for placement and retrieval; (v) disposition reporting; and (vi) data analysis and reporting.⁷⁰⁷³ Despite the Pilot Report not specifying the amount of these ministerial costs, it is reasonable for the Commission to consider the existence of these costs in a comparison with customer incentives.

The record of this proceeding is complete with respect to device, installation, and retrieval costs for systems sized up to and including 3 megawatts. These costs are estimated to be approximately \$1,623 per device, \$1,688 per prohibited resource, or \$2,221 per site.⁷¹⁷⁴ This decision agrees with the Pilot Report that the per site cost versus the per device costs is “the most important metric for planning future prohibited resource monitoring” when comparing to customer incentives because costs are communicated to the customer on a per service account basis and audits are conducted on a customer

⁷⁰⁷³ Pilot Report at 18 (A-23).

⁷¹⁷⁴ Pilot Report at 19 (A-24), Table 3-14.

site basis.⁷²⁷⁵ Hence, it is reasonable to compare customer incentives with the total per site cost of \$2,221, with the recognition that this cost does not include ministerial costs or any costs related to lost productivity.

The Pilot Report asserts the per site cost of \$2,221 is a first-year cost, if the Commission would adopt its recommendation to maintain a fleet of devices and install and retrieve annually.⁷³⁷⁶ This decision agrees that on-going costs depend upon the final adopted monitoring approach and would include data retrieval and maintenance but could also include annual installation and retrieval of devices, if the Commission would adopt the Pilot Report recommendation. Accordingly, this decision concludes that when comparing the data logger cost with customer incentives, the Commission should look at costs and incentives in a complete manner.

Sierra Club submits that the size of incentive payments to demand response customers “comfortably compensate customers for annual monitoring costs” discussed in this proceeding.⁷⁴⁷⁷ Cal Advocates contends that for large commercial customers the cost of the required technology would be less than the annual incentives for one year. For example, the record shows that PG&E Base Interruptible Program customers with generators between one and 20 megawatts receive annual mean incentives of up to \$410,000.⁷⁵⁷⁸ However, as PG&E has argued in its brief, customers with these large incentives represent only 110 customers or 15 percent of Base Interruptible Program customers, whereas customers with generators between 100 kilowatts and 500 kilowatts, representing

⁷²⁷⁵ Pilot Report at 19 (A-24).

⁷³⁷⁶ Pilot Report at 19 (A-24).

⁷⁴⁷⁷ Sierra Club Opening Brief at 16.

⁷⁵⁷⁸ PGE-01 at Attachment A.

38 percent of the Base Interruptible Program customers, have a mean incentive equaling \$6,790.⁷⁶⁷⁹

The data show a diverse range of incentives across the customer base. They also show that while the first-year cost of \$2,221 per site is reasonable for customers with higher incentives, it is not as reasonable for customers with lower incentives, especially since this decision has determined that the first-year cost of \$2,221 does not include ministerial costs or costs related to a customer's lost productivity, nor does it include on-going costs. As discussed in the next section of this decision, whether to adopt required data collection devices is not solely a matter of comparing the costs of the devices with customer incentives.

5.4. Data Logger Requirements for Demand Response Prohibited Resources Verification Plan

This decision sets to balance verification with necessity and incrementally revises the Verification Plan to annually monitor the prohibited resources of a random set of Scenario 2 customers by installation of the adopted data logger and current transformer. To be clear, these would be the same randomly selected Scenario 2 customers as those selected for the annual audit. As described below, while the Commission considers the current Verification Plan to be a sound approach, there is room for incremental improvement.

5.4.1. Recommendations

The Pilot Report recommends the Commission amend the Verification Plan to require that an annual random sampling of Scenario 2 demand response participants be audited to develop and encourage compliance with the Prohibited Resources Policy. Further the Pilot Report recommends the

⁷⁶⁷⁹ PG&E Opening Brief at 11 citing Attachment A at Table 1.

Commission adopt the use of interval meters as the default data collection device, except where installation of interval meters is not possible and where prohibited resources are already equipped with on-board metering. To justify this recommendation, the Pilot Report pointed to two barriers for requiring all Scenario 2 demand response participants to install a data collection device or have the device placed onto the prohibited resource: (1) the Scenario 2 demand response participants randomly sampled are unlikely to have the appropriate level of stewardship required to keep the fleet of data collection devices operating; and (2) the level of effort for the utilities, demand response providers, or the administrator of the Verification Plan to maintain a permanent census fleet of data collection devices would be “massive and extremely expensive.”⁷⁷⁸⁰

SCE supports the recommendations in the Pilot Report, underscoring that results of the Pilot Report reveal that some level of data collection devices may be warranted.⁷⁸⁸¹ In supporting an annual random audit versus monitoring of all Scenario 2 customer resources, SCE contends the actual costs of monitoring all Scenario 2 customer resources is unknown. For example, a data request from Cal Advocates to Nexant indicates fieldwork costs (not included in the Pilot Report) estimated at \$75,309 for a random audit of 24 sites or an estimated minimum cost of \$1,082,610 for monitoring of prohibited resources for all Scenario 2 demand response participants.⁷⁹⁸² SCE further notes this estimate does not account for increases in enrollment.⁸⁰⁸³

⁷⁷⁸⁰ Pilot Report at 34-35 (A-39 to A40).

⁷⁸⁸¹ SCE Opening Brief at 7.

⁷⁹⁸² SCE Opening Brief at 10 citing SCE-20.

⁸⁰⁸³ SCE Opening Brief at 11.

Cal Advocates opposes anything less than monitoring of all prohibited resources for Scenario 2 demand response participants. Cal Advocates maintains that operating manifests, loggers, and random audits cannot accurately establish whether a prohibited resource has been used to respond to a demand response event. Contending that the compliance rates reported by the Pilot Report may not be reflective of all Scenario 2 customers' behavior, Cal Advocates surmises that the Commission cannot know whether all Scenario 2 customers comply with the Prohibited Resources Policy without data collection devices placed on all Scenario 2 customer resources.^{[8184](#)}

Similarly, Sierra Club asserts the only proven way for the Commission to conclusively verify that no Scenario 2 customer uses a prohibited resource during a demand response event is by monitoring every Scenario 2 customer.^{[8285](#)} Sierra Club claims that this requirement would affect only a small fraction of overall demand response customers who have prohibited resources (345 service accounts) and only 265 service accounts who would need to install new equipment to demonstrate compliance.^{[8386](#)}

PG&E opposes adoption of a requirement that has either Scenario 2 demand response participants install data collection devices or Applicants install the devices on prohibited resources. PG&E contends: (i) the incentives provided by Applicants do not outweigh the costs of installing the equipment for many customers; (ii) the Commission and Applicants have alternate modes of verifying policy compliance; and (iii) costs spent on data collection devices to detect a relatively low rate of non-compliance could be used to develop efficient and

^{[8184](#)} Cal Advocates Opening Brief at 15-16.

^{[8285](#)} Sierra Club Opening Brief at 5.

^{[8386](#)} Sierra Club Opening Brief at 8-9.

affordable clean electric generation technology.⁸⁴⁸⁷ However, if the Commission decides to require data collection devices as part of the Verification Plan, PG&E supports the Audit Report proposal to randomly select 24 Scenario 2 demand response participants on an annual basis to have data collection devices placed on their prohibited resource.

SDG&E argues that requiring the installation of data collection devices on prohibited resources is unnecessary, unworkable, and creates a barrier to demand response participation. SDG&E asserts the attestations alone “have been the most effective mechanism for enforcing the [P]rohibited [R]esources [P]olicy”⁸⁵⁸⁸ and data collection devices in the Pilot only revealed one Type II violation of the policy.⁸⁶⁸⁹ SDG&E recommends the Commission not base its decision on a comparison between data collection device costs and customer incentive data because this introduces an unlevel playing field for demand response participants, “where those customers with prohibited resources are effectively forced out of demand response programs even if they have done nothing wrong.”⁸⁷⁹⁰

CLECA also opposes requiring the installation of data collection devices on all Scenario 2 customers’ prohibited resources. CLECA contends it is wrong to conclude that the cost of a verification program is small relative to the incentive for participating in a demand response program. Asserting this conclusion is based on a comparison of underestimated cost of verification program, CLECA argues such a conclusion fails to consider the customer’s

⁸⁴⁸⁷ PG&E Opening Brief at 14-15.

⁸⁵⁸⁸ SDG&E Opening Brief at 6.

⁸⁶⁸⁹ SDG&E Opening Brief at 8.

⁸⁷⁹⁰ SDG&E Opening Brief at 18-19.

overall cost to participate in demand response.⁸⁸⁹¹ Hence, CLECA supports the Audit Pilot's recommendation to annually audit a random sampling of Scenario 2 demand response participants, with the costs absorbed by ratepayers.⁸⁹⁹²

5.4.2. Reopening the Record

As described above, parties were provided an opportunity to comment on the 2020 and 2021 Audit Reports and any related data. PG&E with SDG&E, Cal Advocates, and Sierra Club each filed comments on these reports. As was the case with the Initial Audit Report, parties had differing interpretations of the results.

PG&E and SDG&E submit that the 2020 and 2021 Audit Reports found zero Type II violations, which they contend validates "that unwanted conduct has not occurred with respect to the use of prohibited resources in responding to demand response events."⁹⁰⁹³ However, both Sierra Club and Cal Advocates submit that attestations and audits will not lead to ensuring violations do not occur. Sierra Club maintains the two most recent audit reports align with the 2019 report in demonstrating why the current attestation procedure is insufficient and notes that a significant number of demand response customers failed to respond to the Verification Administrator's requests for validation or failed to provide an operating manifest.⁹¹⁹⁴ Cal Advocates agrees with Sierra Club that audits alone are not sufficient for verifying compliance with the ban on prohibited resources to respond to a demand response event. Cal Advocates

⁸⁸⁹¹ CLECA Reply Brief at 4.

⁸⁹⁹² CLECA Reply Brief at 8-9.

⁹⁰⁹³ PG&E with SDG&E Opening Comments to July 27, 2022 Ruling at 2 citing 2020 Audit Report at Table 3-1 and 2021 Audit Report at Table 9.

⁹¹⁹⁴ Sierra Club Opening Comments to July 27, 2022 Ruling at 2.

maintains that the increased percentage of incorrect attestations in 2020 and 2021 reinforces the conclusion that the current attestation and auditing process are insufficient.⁹²⁹⁵ Further, Cal Advocates contends operating manifests and logs do not enable the Commission to determine whether use of a prohibited resource coincides with a demand response event or whether the resource was used to respond to that event.⁹³⁹⁶

SCE argues that the audit report interpretations from Cal Advocates and Sierra Club “understate the rigor and effectiveness of the current auditing process.”⁹⁴⁹⁷ SCE underscores that the current process uses a 90 percent confidence level and a 10 percent margin of error and includes reviewing, cross referencing, and comparing investor-owned utility interconnection records, Air Quality Management District permits, customer-maintained operating manifests, load curtailment plans, line diagrams, photos of the generator’s nameplate, and data provided by the investor-owned utilities about demand response events and service outages.⁹⁵⁹⁸

Parties were also asked whether other new data or information should be considered in this proceeding. Responses from Cal Advocates and PG&E with SDG&E reference the Emergency Load Reduction Program, which allows the use of prohibited resources, but arrive at different conclusions as to how the program should be considered in the instant proceeding. PG&E asserts that, given this exception, the Commission should reconsider its demand response Prohibited

⁹²⁹⁵ Cal Advocates Opening Comments to July 27, 2022 Ruling at 1.

⁹³⁹⁶ Cal Advocates Opening Comments to July 27, 2022 Ruling at 2.

⁹⁴⁹⁷ SCE Reply Comments to July 27, 2022 Ruling at 2.

⁹⁵⁹⁸ SCE Reply Comments to July 27, 2022 Ruling at 2.

Resources Policy.⁹⁶⁹⁹ However, Cal Advocates concludes that only incremental load is eligible to be considered in this new program, the Commission has no other way but using an interval meter to verify that a prohibited resource is only providing incremental load reduction and thus the Commission must adopt the use of data collection devices for monitoring.⁹⁷¹⁰⁰

Sierra Club submitted that the Commission should take into consideration a study by Bloom Energy, which asserts that the number of non-residential backup generators increased by 22 percent between 2018 and 2021 in the South Coast Air Quality Management District and by 34 percent in the Bay Area Air Quality Management District during the same time period.⁹⁸¹⁰¹ In response, PG&E and SDG&E maintain that these data do not necessarily translate to a commensurate increase in demand response participants with backup generators.⁹⁹¹⁰²

5.4.3. Improving the Verification Plan

As previously stated, the pivotal questions for the Commission to focus on are the reasonableness of the required equipment costs and who should bear responsibility for the cost of the required equipment. However, the record in this proceeding indicates a dispute on the costs of the equipment and whether these costs are complete. The Commission has concluded that the cost of \$2,221¹⁰⁰¹⁰³ for the minimum required equipment does not include ministerial costs or costs related to a customer's lost productivity. Hence, the Commission should

⁹⁶⁹⁹ PG&E and SDG&E Opening Comments to July 27, 2022 Ruling at 3-4.

⁹⁷¹⁰⁰ Cal Advocates Opening Comments to July 27, 2022 Ruling at 2-3.

⁹⁸¹⁰¹ Sierra Club Opening Comments to July 7, 2022 Ruling at 3.

⁹⁹¹⁰² PG&E and SDG&E Reply Comments to July 27, 2022 Ruling at 5.

¹⁰⁰¹⁰³ Pilot Report at 19 (A-24). This includes the cost of the device, installation, and retrieval.

consider other factors when determining whether to expand the current Verification Plan.

Turning to the current Verification Plan, parties discussed the adequacy of the plan, which is described above as a combination of customer attestations and audits of available data. Applicants and CLECA consider the current plan to be sufficient, while Sierra Club and Cal Advocates contend additional monitoring of all prohibited resources is necessary.

Cal Advocates maintains that the use of attestations and audits is ineffective in determining whether customers are complying with the demand response Prohibited Resources Policy and provides examples of these insufficiencies. First, Cal Advocates asserts the current Verification Plan does not measure or prevent the occurrence of compliance bias.¹⁰¹¹⁰⁴ Second, Cal Advocates contends the Initial Audit Report does not detail how certain assumptions are made.¹⁰²¹⁰⁵ Third, Cal Advocates submits that operating manifests and loggers cannot record specific hours a resource is operating and changes in power flow and therefore are unable to conclusively determine whether a prohibited resource was used during a demand response event.¹⁰³¹⁰⁶

The Commission disagrees with Cal Advocates' assessment of the use of attestations and the Verification Plan to ensure compliance with the Demand Response Prohibited Resources Policy. First, with respect to the prevention of compliance bias, the Commission is not persuaded by Cal Advocates' argument that [compliance bias requires all prohibited resources to be monitored. In comments to the proposed decision, Cal Advocates clarifies that customers being](#)

¹⁰¹¹⁰⁴ Cal Advocates Opening Brief at 15.

¹⁰²¹⁰⁵ Cal Advocates Opening Brief at 16.

¹⁰³¹⁰⁶ Cal Advocates Opening Brief at 16.

monitored have reason to behave differently than customers not being monitored
and customers who know they are being ~~observed will automatically comply.~~
~~The~~monitored have a greater incentive to comply with the prohibition. This
decision does not find this to be a negative outcome since compliance is the
objective of the Verification Plan.¹⁰⁷ However, this decision highlights that while
the Pilot Report indicates only one occurrence of a Type II violation, ~~and~~-that
customer was aware of the monitoring and yet declined to comply. Correcting
this behavior is a positive outcome of the random monitoring. The
recommendation of Cal Advocates and Sierra Club to monitor all prohibited
resources is discussed further below in this section. Second, this decision has
already determined that data loggers are an appropriate device for determining
whether a non-fuel cell resource is adhering to the Prohibited Resources Policy.
Hence, the adequacy of the data loggers is confirmed. Further, while Cal
Advocates submits that the manifest logs used in the annual audits are not
reliable, the manifest logs are not the only source the Commission relies upon to
gauge compliance.

As described by SCE, the Commission uses the attestations and the annual
audits, including the manifest logs, in combination to enforce the Prohibited
Resources Policy. SCE describes the audit process used by the Verification
Administrator:

The audit process involves selecting a random sample of
service accounts per program, across all attestation scenarios,
using a 90 [percent] confidence level and 10 [percent] margin
of error. Verification steps include validating the accuracy of
the customer's attestation submission and performing
additional attestation-specific verification. Depending on the
customer's attestation selection, verification may include cross

¹⁰⁷ [Cal Advocates Opening Comments to the Proposed Decision at 4.](#)

referencing investor-owned utility interconnection records, Air Quality Management District permits, reviewing customer-maintained operating manifests, load curtailment plans, line diagrams, photos of the generator's nameplate, and comparison to data provided by the [investor-owned utilities] about [demand response] events and service outages. ¹⁰⁴108

Additionally, as highlighted by SCE, removal from demand response program participation for Type II violations (including non-compliance with requests from the Verification Administrator) serves as a deterrent for such violations. ¹⁰⁵109 The Commission finds the combination of attestations and audits used in the current Verification Plan to be a sound approach. However, this decision recognizes there is room for improvement.

The three audit reports concluded there is not sufficient evidence to support the position that any of the Scenario 2 audited customers with non-fuel cell resources are using their prohibited resources to reduce load during a demand response event. The three reports based this conclusion on one or more of the following: (i) the incidence of prohibited resource usage on event days and proxy event days is similar; (ii) the testing pattern of the prohibited resources follows a regular calendar and the demand response events during which the resources are run occur on regular monthly testing days; (iii) usage of the prohibited resource is coincident with an outage; or (iv) the number of demand response events with prohibited resource usage is small compared to the number of total demand response events.

Cal Advocates expressed concern regarding this last point. While the Commission does not question that there is a lack of evidence of use of a

¹⁰⁴108 SCE Reply Comments to July 27, 2022 Ruling at 2.

¹⁰⁵109 SCE Reply Comments to July 27, 2022 Ruling at 2.

prohibited resource to produce demand response, it is reasonable to modify the Verification Plan such that it improves the confidence level and margin of error of the audit. However, based on the past audit results of zero Type II violations and one Type II violation described in the Pilot Report, this decision finds an incremental addition to the Verification Plan to be sufficient. This decision finds that an incremental approach is appropriate based on the findings of the Pilot Report and the three audit reports and, as discussed below, balances the costs and benefits to both customers and ratepayers.

Turning back to the recommendation from the Pilot Report, Nexant suggests that the Commission adopt an annual random sampling of Scenario 2 demand response participants, where all prohibited resources at the sampled site are monitored. While Cal Advocates and Sierra Club maintain that a random sampling is insufficient to ensure conclusive verification [and contend the monitoring of all prohibited resources is necessary](#), regulatory efficiency cautions ~~us~~ against unnecessary perfection. As the Commission stated when adopting the Prohibited Resources Policy: “prudence requires some measure of verification.” In D.16-09-056, parties argued for annual site visits as part of the verification plan. The Commission denied that request stating that a “selective audit program should provide the balance of verification without the costliness of annual site visits.”¹⁰⁶¹¹⁰ Here, this decision sets to balance verification with necessity, which — based on the results of a Commission-mandated pilot and related audits — is only incremental change.

¹⁰⁶¹¹⁰ D.16-09-056 at 42. (See *also* Conclusion of Law 14 stating it is “reasonable to require some level of customer compliance with the demand response resource prohibition requirement.”)

In Section 5.2 above, this decision determined that the incentive data alone should not lead to a determination on whether it is reasonable to require the installation of equipment to verify whether a resource is being used to reduce load during a demand response event. In Section 5.3, this decision reiterated that determination stating that the decision to adopt required data collection devices is not solely a matter of comparing the costs of the devices with customer incentives. The record of this proceeding shows that the current practices of attestation and audits performed in the Verification Plan provide a sound approach but require incremental improvement.

Cal Advocates and Sierra Club advocate for a monitoring device on every prohibited resource with the responsibility of the costs to be shouldered by the owner of the prohibited resource. The record indicates that the customer costs outweigh the incentives for many of these customers. Further, the Pilot Report cautions that many customers may not properly maintain the device, creating an even higher cost for those customers. As stated in the Pilot Report, there is a low likelihood that the appropriate level of stewardship required to keep monitoring devices operating as designed will occur.¹⁰⁷¹¹¹ Because only an incremental improvement is necessary, this decision finds that requiring a device on every prohibited resource is not efficient and may result in a loss of participating customers, as Applicants and CLECA have cautioned. [The record shows that in the case of PG&E and SCE, 1,555 customers left demand response programs overall following the attestation filing deadline, and the Base Interruptible Program saw declines of 9.5 percent for SCE and 15 percent for PG&E.¹¹² CLECA contends many of the departures were likely due to new Prohibited Resources](#)

¹⁰⁷¹¹¹ Pilot Report at 35 (A-40).

¹¹² [CLECA-01 at 4-5.](#)

Policy restrictions or, for the Base Interruptible Program customers, “after an adjustment to their firm service level they no longer complied with minimum curtailment rules.”¹¹³

Instead, this decision finds that a fleet of devices installed randomly across Scenario 2 customers, as recommended by the Pilot Report, provides the necessary incremental improvement. Because these devices would continue to be used annually, the devices should be acquired and, therefore, owned by the Applicants as part of the overall Verification Plan. Because the Verification Plan assists the Commission in carrying out California clean energy policies, including the Prohibited Resources Policy, which ~~are~~is a benefit to all ratepayers, the Commission finds that the costs of the required devices, including installation and monitoring should be considered as part of the Verification Plan and be recovered through all ratepayers. The cost of the Verification Plan has also been recovered through ratepayers and the Commission considers the monitoring of prohibited resources an additional element of the Verification Plan.

Accordingly, the Verification Plan should be revised to require that as part of the annual random sampling of Scenario 2 demand response participants, all prohibited resources at the randomly selected customer sites are required to be monitored through the use of the combined data logger and current transformer or through the use of data from built-in interval meters. The sampling shall be conducted in the same manner as is currently used in the Verification Plan. Hence, the Scenario 2 customers selected in the annual audit will be required to have all prohibited resources monitored in addition to ~~process~~the processes described in the current Verification Plan. Unlike the Metering Pilot, selected

¹¹³ [CLECA-01 at 4-5. \(See also SCE-04 at 2:12-17.\)](#)

demand response customers will not be permitted to “opt out” of participating in the data collection device monitoring audit.

A customer selected to be audited and monitored may request that the Commission monitor its prohibited resource through an on-board meter. There is no record on a process for this request. Within 60 days of the issuance of this decision, Applicants shall submit a Tier 3 AL recommending a process for this request.

Applicants are directed to purchase a fleet of 60 data loggers and current transformers as previously described, for use in the annual monitoring. [The initial fleet of 60 data loggers does not define the quantity of monitoring devices to be installed annually under the modified Verification Plan. The installed quantity will vary from year to year, based upon the quantity and the nature of the prohibited resources operated by the Scenario 2 customers who are randomly selected by the existing process described in the Verification Plan.](#) The past three audits have an average of 46.6 Scenario 2 service accounts selected for each audit. A fleet of 60 should provide for [near term](#) future growth in the demand response programs applicable to the Prohibited Resources Policy.

Parties were asked to update the record due to the amount of time that transpired since filing of briefs. No party provided updated costs for the data loggers and current transformers. Applicants are directed to track the costs of the data loggers and current transformers in the same account as the costs for the annual implementation of the Verification Plan. ~~These costs shall be reviewed for reasonableness in the annual Energy Resource Recovery Account process~~[If Applicants believe existing budget requests are insufficient to pay for the costs of the loggers and the subsequent modifications to the Verification Plan, they may](#)

choose to amend their phase 2 demand response budget applications in A.22-05-002, *et al.*

The first data collection device monitoring audit shall be conducted in 2024, and in each subsequent year thereafter, and shall coincide with the annual verification audit. This will provide the Applicants a year to purchase the fleet of devices.

Within 90 days of the issuance of this decision, Applicants shall submit a Tier 2 AL updating the Verification Plan pursuant to this decision and proposing an implementation plan. This AL should also include: (1) the proposed assignment of new tasks described herein to either the Verification Administrator or the Applicants; (2) a proposal for how and when additional data loggers and current transformers will be procured when the need arises; (3) the approximate annual cost to conduct the modified Verification Plan; and (4) a proposal for communicating the Verification Plan modifications to non-residential demand response program customers subject to the Prohibited Resources Policy.

6. Comments on Proposed Decision

The proposed decision of Commissioner John Reynolds in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on November 15, 2022 by CLECA, Cal Advocates, PG&E, SDG&E, Sierra Club, and ~~reply~~SCE. Reply comments were filed on by November 21, 2022 by PG&E, SDG&E, and SCE. Revisions and corrections were made to the decision in response to the comments. Reiterated arguments are not addressed. This decision makes two clarifications below.

In comments to the proposed decision, SDG&E states that the proposed decision does not contemplate how the Applicants will randomly select customers to receive the data loggers, notify customers, do site visits, schedule installations, maintain the devices, monitor the loggers, or collect data.¹¹⁴ As stated in Section 5.4.3 above, the Verification Plan should be revised such that all prohibited resources at Scenario 2 customer sites randomly selected by the Verification Administrator as part of the annual audit are now required to be monitored through the use of the combined data logger and current transformer or through the use of data from built-in interval meters. Hence, the monitoring of prohibited resources will be incorporated as part of the annual audit and be performed as part of the duties of the Verification Plan.

Both Cal Advocates and Sierra Club recommend an alternate approach where 60 Scenario 2 customers have data loggers and current transformers installed each year until all Scenario 2 customers are being monitored on an annual basis. Cal Advocates and Sierra Club contend re-installation is significantly more expensive than equipment or retrieval on a per-unit basis and exceeds the combined costs of both activities.¹¹⁵ The record of this proceeding does not contain sufficient information to support this proposal. This decision does not adopt data loggers with communications modules. Without communications modules, there is an additional retrieval cost to download data and replace batteries, which is not contained in the record of this proceeding. Nor did the parties examine initial costs, technical requirements, and ongoing service costs associated with loggers that include communications modules. This

¹¹⁴ SDG&E Opening Comments to Proposed Decision at 3.

¹¹⁵ Cal Advocates Opening Comments to Proposed Decision at 6 and Sierra Club Opening Comments to Proposed Decision at 4-6.

proposal would eventually require these additional unknown costs on all prohibited resources, which could be substantial. Given these unknown costs and given that the decision finds only an incremental change to the Verification Plan is needed, the proposal of Cal Advocates and Sierra Club is denied.

7. Assignment of Proceeding

John Reynolds is the assigned Commissioner and Kelly A. Hymes is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. Most fuel cell resources contain on-board metering.
2. There is no need for external data collection devices to monitor fuel cell resources.
3. The practice of using on-board metering is efficient.
4. Fuel cell resources typically operate continuously.
5. Some non-fuel cell prohibited resources may be used for baseload production, but baseload production is dominated by fuel cells.
6. It is only necessary to know whether a non-baseload producing resource is serving load to determine whether that resource is in violation of the Prohibited Resources Policy.
7. Installation of a data logger in combination with a current transformer will indicate whether an end use is in operation.
8. Capturing the level of power of a non-baseload producing prohibited resource is not necessary for determining compliance with the Prohibited Resources Policy.
9. Once a data logger is in place, the potential for human contact would not occur until removal of the logger.
10. Data loggers can store data electronically until retrieved.

11. Incentive data in this record are sufficient to make a comparison between incentive amounts and the costs of the data logger and current transformer.

12. Parties' claims of total costs related to the data collection devices vary.

13. Adopting data collection device requirements for Scenario 2 customers results in ministerial costs, aside from the purchase, implementation, and retrieval of the devices.

14. The record shows the average cost of the data collection device, installation, and retrieval costs for systems sized up to and including 3 megawatts is approximately \$1,623 per device, \$1,688 per prohibited resource, or \$2,221 per site.

15. The per site cost, as opposed to the per device cost, is the most important metric for planning future prohibited resource monitoring when compared to customer incentives because costs are communicated to the customer on a per service account basis and audits are conducted on a customer site basis.

16. The per site cost of \$2,221 is a first-year cost, exclusive of ministerial costs or any costs related to a customer's lost productivity.

17. Ongoing costs for data loggers depend upon the adopted final Verification Plan and would include future years' data retrieval and maintenance but could include annual installation and retrieval of devices.

18. PG&E Base Interruptible Program customers with generators between one and 20 megawatts receive annual mean incentives of up to \$410,000 but only represent 15 percent of Base Interruptible Program customers.

19. PG&E Base Interruptible Program customers with generators between 100 kilowatts and 500 kilowatts represent 38 percent of the program's customers and have a mean incentive equaling \$6,790.

20. There is a diverse range of incentives across demand response customers.

21. The Commission uses a combination of attestations and annual audits to enforce the Prohibited Resources Policy.

22. The three audit reports found zero Type II violations; the Pilot Report found one Type II violation.

23. The three audit reports each concluded there is not sufficient evidence to support the position that any of the Scenario 2 audited customers used their prohibited resources to reduce load during a demand response event.

24. D.16-09-056 determined that prudence requires some measure of verification of compliance with the Prohibited Resources Policy.

25. D.16-09-056 denied party requests for annual site visits, finding them costly.

26. Many demand response customers will not develop the ability to successfully maintain either of the data collection devices due to a low likelihood that the appropriate level of stewardship, required to keep the fleet of monitoring devices operating as designed, will occur.

27. There is no record on the process for a customer requesting approval of monitoring its prohibited resource through an on-board meter.

28. Costs for the Verification Plan are historically recovered through all ratepayers.

Conclusions of Law

1. The Commission should not require data collection devices for monitoring fuel cell resources.

2. The Commission should require on-board meters in fuel cell resources to be set to measure and record output at 15-minute intervals.

3. The Commission should adopt a data logger and a current transformer as the required data collection device for monitoring non-fuel cell prohibited resources.

4. The Commission should not rely solely on a comparison of the incentive data with the costs of the data collection device to determine whether to require installation of the device to verify whether a prohibited resource is being used to reduce load during a demand response event.

5. The Commission should consider the existence of related ministerial costs when comparing them with demand response customer incentives.

6. The Commission should compare customer incentives with the total per site cost of \$2,221, with the recognition that this cost does not include ministerial costs or any costs related to a customer's lost productivity.

7. The first-year cost of \$2,221 per site is reasonable for customers with higher incentives but not for customers with lower incentives, ~~considering~~ [given that](#) the cost does not include ministerial cost, ongoing costs, or cost related to a customer's lost productivity.

8. Whether to adopt required data collection devices for monitoring the use of prohibited resources is not solely a matter of comparing the costs of the devices with customer incentives.

9. The current Verification Plan is a sound approach but requires incremental improvement.

10. Requiring a device on every prohibited resource is not efficient and may result in a loss of participating demand response customers.

11. The Commission should direct Applicants to acquire the required [monitoring](#) devices as part of the Verification Plan.

12. The Commission should incrementally improve the Verification Plan by requiring [the installation of](#) monitoring ~~of~~ [devices on the](#) prohibited resources for [the same](#) Scenario 2 demand response ~~participants~~ [customers](#) who are randomly selected for the annual audit by the current Verification Plan.

13. The Commission should modify the Demand Response Prohibited Resources Verification Plan to include the annual monitoring of all prohibited resources at [the same](#) randomly selected [Scenario 2](#) customer sites [as those selected for the annual Verification Plan audit](#).

14. The Commission should require fuel cell prohibited resources to be monitored through the use of on-board metering set to measure and record output at 15-minute intervals and non-fuel cell prohibited resources to be monitored through the use of a combined data logger and a current transformer.

15. The Commission should require the annual monitoring to be conducted by the Verification Plan Administrator and to coincide with the annual Verification Audit beginning in the year 2024.

16. The Commission should require Applicants to submit a Tier 3 AL recommending a process for customers to request that the Verification Administrator use data from on-board monitoring devices in lieu of the installation of external data loggers and current transformers.

17. Applicants should recover the costs of the required monitoring devices from all ratepayers.

18. The Commission should require that the costs of the required devices be tracked by Applicants in the same accounts as costs for the Verification Plan ~~and be reviewed for reasonableness in the Applicants' annual Energy Resource Recovery Account Process.~~

19. The Commission should require Applicants to submit a Tier 2 AL updating the Verification Plan pursuant to ~~the~~[all](#) directives in this decision.

O R D E R

IT IS ORDERED that:

1. ~~Within 180 days of the issuance date of this decision~~[No later than March 1, 2024](#), Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E) and Southern California Edison Company (SCE) shall collectively purchase a total of 60 data loggers and current transformers in preparation for the 2024 Verification Audit. The costs shall be allocated between the three utilities as follows: PG&E – 40 percent, SCE – 40 percent, and SDG&E – 20 percent.

2. Costs for the devices purchased pursuant to Ordering Paragraph 1 shall be tracked by Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company (jointly, Applicants) in the same demand response accounts as costs for the [Demand Response Prohibited Resources Policy](#) Verification Plan ~~and shall be reviewed for reasonableness in the annual Energy Resource Recovery Account process for Applicants.~~

3. Within 60 days of the issuance date of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall submit a Tier 3 Advice Letter recommending a process for demand response customers selected to be audited and monitored to request monitoring of ~~its~~[their](#) prohibited resource through an on-board meter.

4. Within 90 days of the issuance date of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall submit a Tier 2 Advice Letter updating the Demand

Response Prohibited Resources Policy Verification Plan pursuant to the directives in this decision.

5. Applications (A.) 18-10-008, A.18-10-009, and A.18-10-010 are closed.

This order is effective today.

Dated _____, at San Francisco, California.

Document comparison by Workshare Compare on Wednesday, November 30, 2022 10:08:06 AM

Input:	
Document 1 ID	file:///C:/Users/nd3/OneDrive - The CPUC/CPUC Work/A1810008, et al. JReynolds PD [Hymes] (rcvd.2022-10-07)Workshare ORIGINAL A1810008, et al. JReynolds PD [Hymes].docx
Description	Workshare ORIGINAL A1810008, et al. JReynolds PD [Hymes]
Document 2 ID	file:///C:/Users/nd3/OneDrive - The CPUC/CPUC Work/A1810008, et al. JReynolds PD [Hymes] (rcvd.2022-10-07)Workshare MODIFIED A1810008, et al. JReynolds PD [Hymes].docx
Description	Workshare MODIFIED A1810008, et al. JReynolds PD [Hymes]
Rendering set	Standard

Legend:	
<u>Insertion</u>	
Deletion	
Moved from	
<u>Moved to</u>	
Style change	
Format change	
Moved deletion	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	271
Deletions	235
Moved from	0

Moved to	0
Style change	0
Format changed	0
Total changes	506